

Title (en)  
BELLOWS RESTRAINT

Title (de)  
FALTENBALGZURÜCKHALTUNG

Title (fr)  
RETENUE DE SOUFFLET

Publication  
**EP 3387316 A4 20190717 (EN)**

Application  
**EP 16873529 A 20161031**

Priority  
• US 201562263890 P 20151207  
• US 201615082317 A 20160328  
• US 2016059682 W 20161031

Abstract (en)  
[origin: US2017159860A1] A bellows restraint includes a first bracket having a first mount and a first arm extending from the first mount, a second bracket having a second mount and a second arm extending from the second mount to be adjacent to the first arm with the second arm having at least one through-hole, and a first fastener extending through the at least one through-hole of the second arm to connect to the first arm with the first fastener having a cross-sectional area that is smaller than a cross-sectional area of the at least one through-hole to allow the first bracket to move in relation to the second bracket.

IPC 8 full level  
**F16L 51/02** (2006.01); **F16L 27/11** (2006.01); **F16L 27/111** (2006.01); **F16L 51/03** (2006.01); **F16L 55/00** (2006.01)

CPC (source: EP KR US)  
**F16L 27/11** (2013.01 - EP US); **F16L 27/111** (2013.01 - EP US); **F16L 51/025** (2013.01 - KR); **F16L 51/028** (2013.01 - KR); **F16L 55/00** (2013.01 - KR); **F16L 51/028** (2013.01 - EP US); **F16L 51/035** (2013.01 - EP US)

Citation (search report)  
• [X] EP 2620686 A1 20130731 - SIEMENS AG [DE]  
• [XI] GB 2034843 A 19800611 - PFORZHEIM METALLSCHLAUCH  
• [XI] GB 2042115 A 19800917 - PFORZHEIM METALLSCHLAUCH  
• [XI] US 2013037764 A1 20130214 - GRIVETTI TAZIO STEPHAN [US]  
• See references of WO 2017099903A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**US 10203057 B2 20190212; US 2017159860 A1 20170608**; CN 108603629 A 20180928; CN 108603629 B 20200612; EP 3387316 A1 20181017; EP 3387316 A4 20190717; EP 3387316 B1 20211013; JP 2019502068 A 20190124; JP 6953669 B2 20211027; KR 102587190 B1 20231006; KR 20180082620 A 20180718; TW 201727062 A 20170801; TW I712740 B 20201211; WO 2017099903 A1 20170615

DOCDB simple family (application)  
**US 201615082317 A 20160328**; CN 201680081050 A 20161031; EP 16873529 A 20161031; JP 2018530083 A 20161031; KR 20187019356 A 20161031; TW 105135435 A 20161102; US 2016059682 W 20161031